

IN THE CLAIMS

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect cancellation of claims 2, 13-23, 66, 67, 69, 70, 72-75 and amendment of previously pending claims 1, 9 and 11-12. The specific amendments to individual claims are detailed in the following marked up set of claims.

Please delete claims 2, 13-23, 66, 67, 69, 70, 72-75.

Please amend claims 1, 9 and 11-12 as follows:

1. (Amended) A method of forming a solder ball contact, comprising:
 - forming a metal contact pad on a substrate;
 - forming an insulating layer on the metal contact pad;
 - removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming an exposed portion of the metal contact pad, the exposed portion having a predetermined diameter;
 - immersing the substrate in molten solder;
 - depositing solder on the exposed portion of the metal contact pad using selective chemical vapor deposition or selective electrolytic deposition, thereby forming a solder contact by selectively depositing solder only on the exposed portion of the metal contact without depositing solder on the insulating layer and without removing a remaining portion of the insulating layer; and
 - annealing the solder contact to form a solder ball contact having a diameter in a range of about 2.5 microns to no greater than 100 microns.

9. (Amended) A method of forming a solder ball contact, comprising:
 - forming a metal contact pad on a substrate;
 - forming an insulating layer on the metal contact pad;
 - removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming an exposed portion of the metal contact pad;

immersing the substrate in molten solder;
depositing solder on the exposed portion of the metal contact pad, thereby forming a solder contact by selectively depositing solder only on the exposed portion of the metal contact and not depositing solder on the insulating layer;
maintaining remaining portions of the insulating layer surrounding the solder; and
annealing the solder contact to form a solder ball contact having a diameter in a range of about 2.5 microns to no greater than 100 microns.

11. (Amended) A method of forming a solder ball contact, comprising:
forming a metal contact pad on a substrate;
forming an insulating layer on the metal contact pad;
removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming an exposed portion of the metal contact pad, wherein the exposed portion of the metal contact pad has a diameter of approximately 2 microns;
immersing the substrate in molten lead;
selectively depositing lead on the exposed portion of the metal contact pad, thereby forming a solder contact in which solder is selectively deposited only on the exposed portion of the metal contact and not on the insulating layer; and
annealing the solder contact to form a solder ball contact without removing remaining portions of the insulating layer .

12. (Amended) A method of forming a solder ball contact, comprising:
forming a metal contact pad on a substrate;
forming an insulating layer on the metal contact pad;
removing a portion of the insulating layer to expose a portion of the metal contact pad, thereby forming an exposed portion of the metal contact pad, the exposed portion having a predetermined diameter;
adsorbing reactants on the exposed portion of the metal contact pad;